

AMENDMENTS TO THE CLAIMS:

1. (Cancelled)

2. (Currently Amended) A driving assist system for a vehicle, comprising:

a traveling condition recognition device configured to detect a state of the vehicle and a traveling environment of the vehicle;

a risk potential calculation device configured to calculate a risk potential present around the vehicle based upon detection results obtained by the traveling condition recognition device;

a reaction force adjustment device configured to adjust reaction force characteristics of a vehicle operating device steering device or an accelerator pedal to convey information related to the calculated risk potential to a driver of the vehicle, based upon the risk potential calculated by the risk potential calculation device; device, wherein the vehicle operating device is a steering device or an accelerator pedal

an external influence detection device configured to detect an external influence which will affect an operation of the steering device or the accelerator pedal by ~~[[a]]~~ the driver; and

a reaction force correction device configured to correct the reaction force characteristics of the steering device or the accelerator pedal adjusted by the reaction force adjustment device,

based upon detection results obtained by the external influence detection device, wherein:

the reaction force adjustment device adjusts at least one of reaction force characteristics of the accelerator pedal and reaction force characteristics of the steering device as the reaction force characteristics of the steering device or the accelerator pedal.

3. (Currently Amended) A driving assist system for a vehicle, comprising:

a traveling condition recognition device configured to detect a state of the vehicle and a traveling environment of the vehicle;

a risk potential calculation device configured to calculate a risk potential present around the vehicle based upon detection results obtained by the traveling condition recognition device;

a reaction force adjustment device configured to adjust reaction force characteristics of a steering device or an accelerator pedal based upon the risk potential calculated by the risk potential calculation device;

an external influence detection device configured to detect an external influence which will affect an operation of the steering device or the accelerator pedal by a driver; and

a reaction force correction device configured to correct the reaction force characteristics of the steering device or the accelerator pedal adjusted by the reaction force adjustment device, based upon detection results obtained by the external influence detection device, wherein the reaction force adjustment device adjusts at least one of reaction force characteristics of the accelerator pedal and reaction force characteristics of the steering device as the reaction force characteristics of the steering device or the accelerator pedal; and

A driving assist system for a vehicle according to claim 2, wherein:

the reaction force adjustment device adjusts reaction force characteristics of the accelerator pedal as the reaction force characteristics of the steering device or the accelerator pedal;

the external influence detection device detects a state of inclination of a lane on which the vehicle is traveling as the external influence; and

the reaction force correction device corrects the reaction force characteristics of the accelerator pedal in conformance to the state of inclination of the lane detected by the external influence detection device.

4. (Currently Amended) A driving assist system for a vehicle, comprising:

a traveling condition recognition device configured to detect a state of the vehicle and a

traveling environment of the vehicle;

a risk potential calculation device configured to calculate a risk potential present around the vehicle based upon detection results obtained by the traveling condition recognition device;

a reaction force adjustment device configured to adjust reaction force characteristics of a steering device or an accelerator pedal based upon the risk potential calculated by the risk potential calculation device;

an external influence detection device configured to detect an external influence which will affect an operation of the steering device or the accelerator pedal by a driver; and

a reaction force correction device configured to correct the reaction force characteristics of the steering device or the accelerator pedal adjusted by the reaction force adjustment device, based upon detection results obtained by the external influence detection device, wherein the reaction force adjustment device adjusts at least one of reaction force characteristics of the accelerator pedal and reaction force characteristics of the steering device as the reaction force characteristics of the steering device or the accelerator pedal; and

A driving assist system for a vehicle according to claim 2, wherein:

the reaction force adjustment device adjusts reaction force characteristics of the steering device as the reaction force characteristics of the steering device or the accelerator pedal;

the external influence detection device detects a curving direction of a lane on which the vehicle is currently traveling and a direction along which the risk potential is present as the external influence; and

the reaction force correction device corrects the reaction force characteristics of the steering device in conformance to the curving direction of the lane and the direction along which the risk potential is present relative to the vehicle detected by the external influence detection device.

5. (Original) A driving assist system for a vehicle according to claim 3, wherein:

the reaction force adjustment device calculates a reaction force adjustment quantity for the accelerator pedal in correspondence to the risk potential and adjusts the reaction force characteristics of the accelerator pedal by incorporating the reaction force adjustment quantity; and

the reaction force correction device makes a correction so as to reduce the reaction force adjustment quantity calculated by the reaction force adjustment device if the lane is an uphill lane and makes a correction so as to increase the reaction force adjustment quantity calculated by the reaction force adjustment device if the lane is a downhill lane.

6. (Original) A driving assist system for a vehicle according to claim 4, wherein:

the reaction force adjustment device calculates a reaction force adjustment quantity for the steering device in correspondence to the risk potential and adjusts the reaction force characteristics of the steering device by incorporating the reaction force adjustment quantity; and

the reaction force correction device, (a) corrects the reaction force adjustment quantity calculated by the reaction force adjustment device if the curving direction and the direction along which the risk potential is present do not match and (b) leaves the reaction force adjustment quantity calculated by the reaction force adjustment device if the curving direction and the direction along which the risk potential is present match.

7. (Previously Presented) A driving assist system for a vehicle according to claim 6, wherein:

the reaction force correction device: (a) incorporates the reaction force adjustment quantity along both a steering direction matching the curving direction and a steering direction opposite from the curving direction when the curving direction and the direction along which the

risk potential is present match and (b) incorporates the reaction force adjustment quantity along the steering direction matching the curving direction and incorporates the corrected reaction force adjustment quantity along the steering direction opposite from the curving direction when the curving direction and the direction along which the risk potential is present do not match.

8. (Previously Presented) A driving assist system for a vehicle according to claim 6, wherein:

the reaction force correction device: (a) incorporates the reaction force adjustment quantity along both a steering direction matching the curving direction and a steering direction opposite from the curving direction when the curving direction and the direction along which the risk potential is present match and (b) incorporates the corrected reaction force adjustment quantity along the direction opposite from curving direction without incorporating the reaction force adjustment quantity along the steering direction matching the curving when the curving direction and the direction along which the risk potential is present do not match.

9. (Previously Presented) A driving assist system for a vehicle according to claim 6, wherein:

the reaction force correction device: (a) changes an inclination of the reaction force characteristics by incorporating the reaction force adjustment quantity along both a steering direction matching the curving direction and a steering direction opposite from the curving direction when the curving direction and the direction along which the risk potential is present match and (b) changes the inclination of the reaction force characteristics by incorporating the corrected reaction force adjustment quantity along the steering direction opposite from the curving direction without altering the inclination of the reaction force characteristics along the steering direction matching the curving direction when the curving direction and the direction

along which the risk potential is present do not match.

10. (Original) A driving assist system for a vehicle according to claim 7, wherein:

the traveling condition recognition device detects at least a steering angle of the steering device; and

the reaction force correction device corrects the reaction force adjustment quantity based upon the risk potential and the steering angle.

11. (Original) A driving assist system for a vehicle according to claim 8, wherein:

the traveling condition recognition device detects at least a steering angle of the steering device; and

the reaction force correction device corrects the reaction force adjustment quantity based upon the risk potential and the steering angle.

12. (Original) A driving assist system for a vehicle, according to claim 9, wherein:

the traveling condition recognition device detects at least a steering angle of the steering device; and

the reaction force correction device corrects the reaction force adjustment quantity based upon the risk potential and the steering angle.

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13. (Cancelled)

14. (Currently Amended) A driving assist system for a vehicle, comprising:

a traveling condition recognition device configured to detect a state of the vehicle and a traveling environment of the vehicle;

a risk potential calculation device configured to calculate a risk potential present around the vehicle based upon detection results obtained by the traveling condition recognition device;

a reaction force adjustment device configured to adjust reaction force characteristics of a steering device or an accelerator pedal to convey information related to the calculated risk potential to a driver of the vehicle, based upon the risk potential calculated by the risk potential calculation device;

an external influence detection device configured to detect an external influence which will affect an operation of the steering device or the accelerator pedal by ~~[[a]]~~ the driver; and

a reaction force correction device configured to correct the reaction force characteristics of the steering device or the accelerator pedal adjusted by the reaction force adjustment device, based upon detection results obtained by the external influence detection device,

wherein:

the external influence detection device detects a driver's perception of a reaction force generated at the steering device or the accelerator pedal as the external influence;

~~the vehicle operating device is an accelerator pedal; and~~

the external influence detection device detects a state of depression of the accelerator pedal to judge the driver's perception, wherein the external influence detection device judges the driver's perception to be acute if an extent to which the accelerator pedal is depressed is being increased and judges the driver's perception to be dull if the extent of depression is being decreased.

15. (Original) A driving assist system for a vehicle according to claim 14, wherein:

the external influence detection device estimates the state of depression based upon a running resistance of the vehicle.

Claims 16-18 (Cancelled)

19. (Previously Presented) The system of claim 2, wherein the reaction force correction

device corrects the reaction force characteristics differently based on different levels of a running resistance estimating a state of a pedal operation by the driver of the vehicle.

20. (Cancelled)

21. (Previously Presented) A vehicle incorporating the system of claim 2.

22. (Cancelled)

23. (Currently Amended) A driving assist method for a vehicle comprising the machine-executed steps of:

detecting a state of the vehicle and a traveling environment of the vehicle;

calculating a risk potential present around the vehicle based upon the detected state of the vehicle and the detected traveling environment of the vehicle;

adjusting reaction force characteristics of a steering device or an accelerator pedal to convey information related to the calculated risk potential to a driver of the vehicle, based upon the calculated risk potential;

detecting an external influence which will affect an operation of the steering device or the accelerator pedal by [[a]] the driver; and

correcting the adjusted reaction force characteristics of the steering device or the accelerator pedal, based upon the detected external influence;

wherein:

the adjusting step adjusts at least one of reaction force characteristics of the accelerator pedal and reaction force characteristics of the steering device as the reaction force characteristics of the steering device or the accelerator pedal.

24. (New) The system of claim 2, wherein:

the reaction force adjustment device adjusts reaction force characteristics of the vehicle operating device as the reaction force characteristics of the vehicle operating device;

the external influence detection device detects a curving direction of a lane on which the vehicle is currently traveling and a direction along which the risk potential is present as the external influence; and

the reaction force correction device corrects the reaction force characteristics of the vehicle operating device in conformance to the curving direction of the lane and the direction along which the risk potential is present relative to the vehicle detected by the external influence detection device.

25. (New) The system of claim 24, wherein:

the reaction force adjustment device calculates a reaction force adjustment quantity for the vehicle operating device in correspondence to the risk potential and adjusts the reaction force characteristics of the vehicle operating device by incorporating the reaction force adjustment quantity; and

the reaction force correction device, (a) corrects the reaction force adjustment quantity calculated by the reaction force adjustment device if the curving direction and the direction along which the risk potential is present do not match and (b) leaves the reaction force adjustment quantity calculated by the reaction force adjustment device if the curving direction and the direction along which the risk potential is present match.